EUROPEAN PATENT APPLICATION

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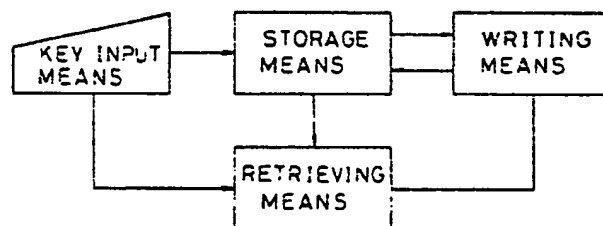(72) Inventor: Hirami, Akira
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(54) Word processing device with an automatic address-input function.

(57) A word processing device with an automatic address-input function comprises a keyboard for inputting a postal code and address; a memory for storing the postal code and address inputted from the keyboard, in correlation with each other; processing unit for retrieving a postal code identical with the postal code inputted from the keyboard among postal codes stored in the memory, for reading an address corresponding to the retrieved postal code from the memory and for making the memory store the address in correlation with a postal code inputted from the keyboard.

FIG. 1

EP 0 351 871 A2

Word Processing Device with an Automatic Address-Input Function

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a word processing device such as a word processor, which has an input unit capable of inputting a postal code and address.

Description of the Related Art

In making an address list using a word processing device, several postal codes and addresses are often required to be inputted in a successive way. In such case, each address must be inputted in its full address even when a newly inputted address includes the common address with a previously registered address, which would be inconvenient.

In Japanese Patent Laid-Open No. 19135/1981, there is disclosed a device capable of automatically inputting a postal district after a postal code corresponding to it is inputted, using a shift table between a postal code and a postal district. Further, in Japanese Patent Laid-Open No. 54431/1983, there is disclosed a device capable of retrieving a complete spelling from a registered file and inputting it when an abbreviated word is given.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a word processing device with an automatic address-input function which retrieves an address corresponding to a previously inputted postal code when a postal code identical with the previously inputted postal code is newly inputted and which automatically inputs the retrieved address, so that work efficiency is improved in inputting an address.

The word processing device with an automatic address-input function according to the present invention comprises key input means for inputting a postal code and address; storage means for storing the postal code and address inputted from the key input means, in correlation with each other; retrieving means for retrieving a postal code identical with the postal code inputted from the key input means

among postal codes stored in the storage means; and writing means for reading an address corresponding to the postal code retrieved by the retrieving means from the storage means and for making the storage means store the address in correlation with a postal code inputted from the key input means.

As will be recognized from the above description, a postal code and address inputted from the key input means are stored in the storage means in correlation with each other.

When a postal code is newly inputted from the key input means, the retrieving means retrieves a postal code identical with the newly inputted postal code among postal codes stored in the storage means. The writing means reads an address corresponding to the postal code retrieved by the retrieving means from the storage means and makes the storage means store the address in correlation with a postal code inputted from the key input means.

Thus, when a postal code identical with a previously inputted postal code is newly inputted, an address is retrieved on the basis of the postal code, and the retrieved address is automatically stored in the storage means so that the address corresponding to the postal code is newly inputted.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram showing a basic architecture of the present invention;

Fig. 2 is a block diagram showing an architecture of an application of the present invention to a word processor; and

Fig. 3 is a flow chart illustrating the operation of an embodiment according to the present invention.

DESCRIPTION OF THE PREFERRED-EMBODI-MENT

The word processing device with an automatic address-input function of the present invention has a basic architecture mainly including key input means, storage means, retrieving means and writing means, as shown in Fig. 1.

The key input means includes known languages shift device such as a kana (Japanese alphabet) - Chinese character shift device capable of shifting an inputted character string of kana into a sentence made of a combination of kana and

Chinese characters.

The key input means may input a postal code as a numerical value and an address as e.g., a kana-Chinese character combined sentence; for example, a keyboard and a tablet device are used.

The storage means may store a postal code and address inputted from the key input means in correlation with each other; for example, an internal storage medium such as a ROM or an external storage medium such as a floppy disc and a magnetic disc is used.

The retrieving means may retrieve a postal code identical with a postal code inputted from the key input means among postal codes stored in the storage means, and the writing means may read an address corresponding to the retrieved postal code from the storage means and make the storage means store the address in correlated with a postal code inputted from the key input means; for example, a microprocessor is conveniently used as these means.

Postal code is defined herein as numerical numbers used for simplifying delivery of mail; it corresponds to zip code in the United States and is usually represented in a number of three or five figures.

The preferred embodiment of the present invention will be explained with reference to the accompanying drawings. It is not intended to limit the invention to the precise form disclosed.

Fig. 2 is a block diagram showing an architecture of an application of the invention to a word processor.

Referring to Fig. 2, the word processor includes a keyboard 1 for inputting a postal code and address, a memory 2 of RAMs for storing the postal code and address inputted from the keyboard 1 in correlation with each other, a display 3 such as a CRT display and an LCD (liquid crystal display, which displays data inputted from the keyboard 1 and stored in the memory 2.

The word processor also includes a CPU 4, which retrieves a postal code identical with a postal code inputted from the keyboard 1 among postal codes stored in the memory 2 and reads an address corresponding to the retrieved postal code from the memory 2 to store it in the memory 2 in correlation with the postal code inputted from the keyboard 1.

Specifically, the CPU 4 writes a postal code, address, name and the like which inputted from the keyboard 1, in the memory 2 as described below.

First, an asterisk "*" for a flag in retrieving, number numerals of three figures for a count number "001", and a first return mark " ↵ " are automatically written in order.

After the first return mark, a number of three or five figures for a postal code inputted from the

keyboard 1 and a second return mark are written. Then, an address inputted from the keyboard 1 and shifted to a kana-Chinese character combined sentence and a third return mark in several lines are written and, further, a name and a fourth return mark are written in order.

When a note must be added, the contents of the note and a return mark is written after the last return mark and, thus, writing of a set of address is completed.

In the second writing, an asterisk "*" and a count number "002" are written before input of a postal code.

The CPU thus writes postal codes, addresses, names and notes in the memory 2 one after another.

When a postal code is inputted from the keyboard 1 and automatic input of the corresponding address is commanded in the course of input as stated above, the CPU 4 retrieves a postal code identical with the inputted postal code, from the beginning of data in the memory 2 using the asterisk as a sign.

The CPU 4 retrieves as described below. First, the retrieving begins with searching for the first asterisk from the beginning of data in the memory 2. Finding out the asterisk, characters between the first return mark after the asterisk and the second return mark are regarded as a postal code and compared with the inputted postal code.

As a result of the comparison, when an identity is not verified, remaining data are skipped to the next asterisk, and then the same procedure is repeated.

When an identity is verified, characters between the second return mark immediately after the postal code and the third return mark are regarded as the address corresponding to the postal code, and the address is copied to an address input position in the memory 2 which is now being used for address data input.

Thus the CPU 4 automatically inputs an address corresponding to an inputted postal code.

The operation of the embodiment will be explained with reference to a flow chart of Fig. 3.

It is assumed herein that the memory 2 stores a postal code and corresponding address in correlation with each other in advance and stored information is displayed on a screen of the display 3.

When a postal code is inputted from the keyboard 1 (Step 201), the CPU 4 retrieves postal code data stored in the memory 2 (Step 202) and judges whether a postal code identical with the postal code inputted from the keyboard 1 exists or not (Step 203).

When such a postal code does not exist, the CPU 4 makes the display 3 indicate a message

"Data do not exist" on the screen (Step 204). When such a postal code exists, the CPU 4 reads address data corresponding to the postal code (Step 205), makes the memory 2 store the address data in correlation with the postal code inputted in Step 201 and makes the display 3 indicate it on the screen (Step 206).

Thus, when a postal code identical with a previously inputted postal code is inputted, an address is retrieved on the basis of the postal code and the retrieved address is automatically inputted.

Consequently, simplified address input is attained, and work efficiency is improved in inputting an address.

Claims

1. A word processing device with an automatic address-input function, comprising;
key input means for inputting a postal code and address;
storage means for storing the postal code and address inputted from said key input means, in correlation with each other;
retrieving means for retrieving a postal code identical with the postal code inputted from said key input means among postal codes stored in said storage means; and
writing means for reading an address corresponding to the postal code retrieved by said retrieving means from said storage means and for making said storage means store the address in correlation with a postal code inputted from said key input means.

2. A device according to claim 1 further comprising display means capable of displaying a postal code and address stored in said storage means.

3. A device according to claim 1 or 2 wherein said storage means stores an asterisk mark for a flag in retrieving, number numerals of three figures for a count number, a first return mark, a postal code, a second return mark, an address, and a third return mark one after another when a postal code and address are inputted from said key input means, so that the postal code and address are stored in correlation with each other.

4. A device according to claim 1, 2 or 3 wherein said retrieving means repeats in order the steps of searching for an asterisk mark from the beginning of data in said storage means when a postal code is inputted from said key input means, regarding characters between the first return mark and the second return mark as a postal code and comparing them with the inputted postal code, so that a postal code identical with the inputted postal code is retrieved among postal codes stored in said storage means.

5. A device according to claim 1, 2, 3 or 4 wherein said writing means regards characters between the second return mark and the third return mark retrieved by said retrieving means as an address corresponding to the postal code and copies the address to an address input position in said storage means, so that the address corresponding to the retrieved postal code is stored in said storage means in correlation with the inputted postal code.
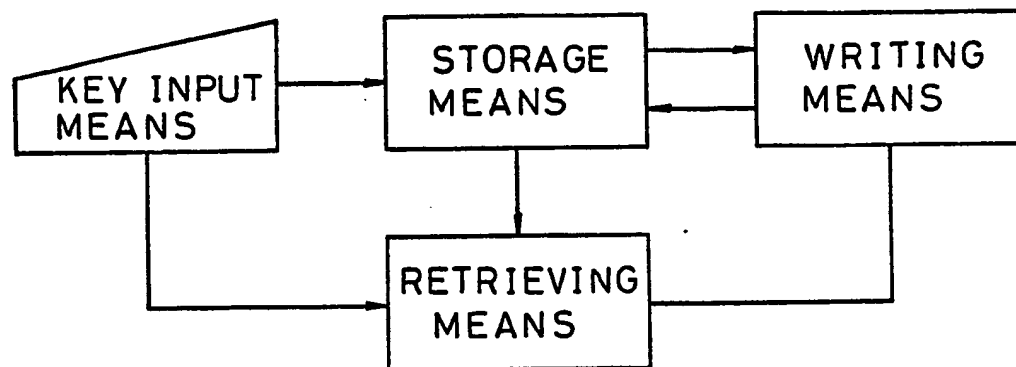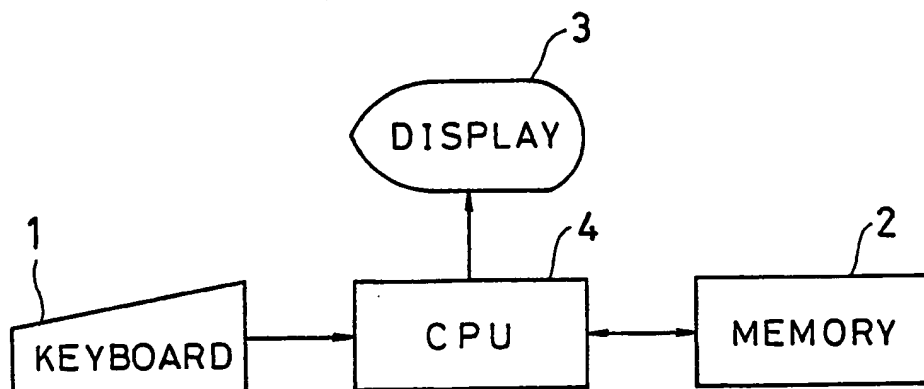
FIG. 1

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┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│  KEY INPUT   │─────▶│   STORAGE    │─────▶│   WRITING    │
│    MEANS     │      │    MEANS     │◀─────│    MEANS     │
└──────────────┘      └──────────────┘      └──────────────┘
       │                     │                     │
       │                     ▼                     │
       │              ┌──────────────┐             │
       └─────────────▶│  RETRIEVING  │◀────────────┘
                      │    MEANS     │
                      └──────────────┘
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FIG. 2

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                        ┌──────────────┐
                        │   DISPLAY    │  3
                        └──────────────┘
                               ▲
    1                          │           4                    2
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│   KEYBOARD   │─────▶│     CPU      │◀────▶│    MEMORY    │
└──────────────┘      └──────────────┘      └──────────────┘
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FIG.3